PTO/SB/05 (08-00) O Approved for use through 10/31/2002. OMB 0651-0032 O Please type a plus sign (+) inside this box U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE OUtlined the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY

MTB06US Attorney Docket No.

| PATENT APPLICATION | First Inventor Kia Silverbrook |
|--|--|
| TRANSMITTAL | Thermal Ink Jet Printhead with Bubble Collapse Title Point Close to Nozzle Aperture |
| (Only for new nonprovisional applications under 37 CFR 1.53(b)) | Express Mail Label No. |
| APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents. | ADDRESS TO: Assistant Commissioner for Patents Box Patent Application Washington, DC 20231 |
| Fee Transmittal Form (e.g., PTO/SB/17) | 7. CD-ROM or CD-R in duplicate, large table or |
| 1. (Submit an original and a duplicate for fee processing) Applicant claims small entity status. | Computer Program (Appendix) |
| 2 See 37 CFR 1.27. | Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) |
| 3. X Specification [Total Pages 59] (preferred errangement set forth below) | a. Computer Readable Form (CRF) |
| Descriptive title of the invention Cross Reference to Related Applications | b. Specification Sequence Listing on: |
| - Statement Regarding Fed sponsored R & D | i. ☐ CD-ROM or CD-R (2 copies); or |
| Reference to sequence listing, a table, or a computer program listing appendix | ii.□ paper |
| - Background of the Invention | c. Statements verifying identity of above copies |
| Brief Summary of the Invention Brief Description of the Drawings (if filed) | ACCOMPANYING APPLICATION PARTS |
| - Detailed Description | Assignment Papers (cover sheet & document(s)) |
| - Claim(s) - Abstract of the Disclosure | 10. 37 CFR 3.73(b) Statement (when there is an assignee) Power of Attorney |
| 4. X Drawing(s) (35 U.S.C. 113) [Total Sheets 66] | 11. English Translation Document (if applicable) |
| 5. Oath or Declaration [Total Pages 2] | 12. Information Disclosure Copies of IDS Statement (IDS)/PTO-1449 Citations |
| a. X Newly executed (original or copy) Copy from a prior application (37 CFR 1 63 (d)) | 13. Preliminary Amendment |
| b. Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 17 completed) | Return Receipt Postcard (MPEP 503) |
| i. DELETION OF INVENTOR(S) | (Snould be specifically itemized) |
| Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR | 15. Certified Copy of Priority Document(s) (if foreign priority is claimed) |
| 1.63(d)(2) and 1.33(b). | 16 Other: |
| 6 Application Data Sheet. See 37 CFR 1.76 | |
| 17. If a CONTINUING APPLICATION, check appropriate box, and suppor in an Application Data Sheet under 37 CFR 1.76: | ly the requisite information below and in a preliminary amendment, |
| or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional X Continuation-in-part (CIP) | of prior application No.: 10 / 302,274 |
| Prior application information: Examiner | Group I Art Unit: |
| For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the Box 5b, Is considered a part of the disclosure of the accompanying continu | e prior application, from which an oath or declaration is supplied under uation or divisional application and is hereby incorporated by reference. |
| The incorporation can only be relied upon when a portion has been inadvented and the incorporation of the incorpor | |
| X Customer Number or Bar Code Label (Insert Customer No. or Attach bar | or Correspondence address below |
| | A CONTROL STATE OF THE STATE OF |
| Name KIA SILVERBROOK | |
| 393 Darling Street, | |
| Address City Balmain | State NSW Zip Code 2041 |
| | |
| | ephone +61-2-9818-6633 Fax +61-2-9555-776 |
| Name (PrintlType) KIA SILVERBROOK | Registration No. (Attorney/Agent) |
| Signature | Date Dec mber 3, 2003 |

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PTO/SB/17 (10-03)
Approved for use through 07/31/2006. OMB 0651-0032
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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

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|-------------------------------|--|
| Co | omplete if Known |
| Application Number | |
| Filing Date | |
| First Named Inventor | Kia Silverbrook |
| Examiner Name | |
| Art Unit | |
| 5 1 | MTDOCLIC |

| METHOD OF PAYMENT (check all that apply) | FEE CALCULATION (continued) | | | | | |
|---|-----------------------------|-------------|----------|-------------|--|-------------|
| Check Credit card Money Other None | 3. ADDITIONAL FEES | | | | | |
| Deposit Account: | Large E | ntity | Small | Entity | | |
| Deposit Country | | Fee (\$) | | Fee (\$) | Fee Description | |
| Account | | 130 | 2051 | | Surcharge - late filing fee or oath | Fee Paid |
| Number Deposit | 1052 | 50 | 2052 | | Surcharge - late provisional filing fee or | |
| Account Name | | | | | cover sheet | |
| The Director is authorized to: (check all that apply) | | 130 | 1053 | | Non-English specification | —— |
| Charge fee(s) indicated below Credit any overpayments | 1812 2 | | 1812 | • | For filing a request for ex parte reexamination | |
| Charge any additional fee(s) or any underpayment of fee(s) | 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action | |
| Charge fee(s) indicated below, except for the filing fee | 1805 1 | 1,840* | 1805 | 1,840* | Requesting publication of SIR after | |
| to the above-identified deposit account. | | | | | Examiner action | |
| FEE CALCULATION | 1251 | 110 | 2251 | 55 | Extension for reply within first month | |
| 1. BASIC FILING FEE | 1252 | 420 | 2252 | 210 | Extension for reply within second month | |
| Large Entity Small Entity Fee Fee Fee Fee Description Fee Paid | 1253 | 950 | 2253 | | Extension for reply within third month | |
| Code (\$) Code (\$) | 1254 1 | | 2254 | 740 | Extension for reply within fourth month | <u> </u> |
| 1001 770 2001 385 Utility filing fee 770.00 | 1255 2 | 2,010 | 2255 | 1,005 | Extension for reply within fifth month | |
| 1002 340 2002 170 Design filing fee | 1401 | 330 | 2401 | 165 | Notice of Appeal | <u> </u> |
| 1003 530 2003 265 Plant filing fee | 1402 | 330 | 2402 | 165 | Filing a brief in support of an appeal | <u> </u> |
| 1004 770 2004 385 Reissue filing fee | 1403 | 290 | 2403 | 145 | Request for oral hearing | ├ |
| 1005 160 2005 80 Provisional filing fee | 1451 1 | 1,510 | 1451 | 1,510 | Petition to institute a public use proceeding | |
| SUBTOTAL (1) (\$) 770.00 | 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable | <u> </u> |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE | 1453 1 | 1,330 | 2453 | 665 | Petition to revive - unintentional | |
| Fee from | 1501 1 | 1,330 | 2501 | 665 | Utility issue fee (or reissue) | |
| Extra Claims below Fee Paid Total Claims 54 -20** = 34 x 18 = 612 | 1502 | 480 | 2502 | 240 | Design issue fee | |
| Independent | 1503 | 640 | 2503 | 320 | Plant issue fee | |
| Claims Multiple Dependent | 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | |
| | 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | |
| Large Entity Small Entity Fee Fee Fee Fee Fee Description | 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | |
| Code (\$) Code (\$) | 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | 40.00 |
| 1202 18 2202 9 Claims in excess of 20 1201 86 2201 43 Independent claims in excess of 3 | 1809 | 770 | 2809 | 385 | Filing a submission after final rejection | |
| 1203 290 2203 145 Multiple dependent claim, if not paid | 1810 | 770 | 2810 | . 385 | (37 CFR 1.129(a)) For each additional invention to be | |
| 1204 86 2204 43 ** Reissue independent claims | | | | | examined (37 CFR 1.129(b)) | \vdash |
| over original patent | 1801 | 770 | 2801 | | Request for Continued Examination (RCE) | |
| 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent | 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | |
| SUBTOTAL (2) (\$) 612 | Other fe | ee (sp | ecify) _ | | | |
| **or number previously paid, if greater; For Reissues, see above | *Reduc | ced by | Basic f | iling F | ee Paid SUBTOTAL (3) (\$) 40.00 |) |

| SUBMITTED BY | | (Complete (if applicable)) | | |
|-------------------|-----------------|--------------------------------------|----------|------------------|
| Name (Print/Type) | Kia Silverbrook | Registration No. (Attorney/Agent) | Telephoi | ne 612 98186633 |
| Signature | IMA | | Date | December 3, 2003 |

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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



SILVERBROOK RESEARCH Pty Ltd

393 Darling Street Balmain NSW 2041 Australia PO Box 207 Balmain NSW 2041 Australia Phone: +61 2 9818 6633 Fax: +61 2 9555 7762 Email: info@silverbrookresearch.com ACN 066 573 671

December 4, 2003

Commissioner of Patents and Trademarks Washington DC 20231 USA

Dear Sir

53 New United States Patent Applications Assignee: Silverbrook Research Pty Ltd

This letter accompanies 53 new patent applications.

53 bank drafts for the total amount of US\$51,520 are enclosed to cover filing and assignment fees for each of the 53 applications. Also attached is a list giving details of each application.

We look forward to receiving filing receipts in due course.

If you need to contact us in relation to the applications, please email my assistant, Kia Silverbrook at Kia Silverbrook@silverbrookresearch.com or by fax to +61 2 9555 7762.

Yours faithfully

Kia Silverbrook

Silverbrook Research Pty Ltd

F BUSINESS OF INVENTIO

| | DOCKET | | INVENTORS | AMOUNT US\$ | PARENT NO |
|----|--------|--|--|------------------|--------------|
| 1 | ZE017 | Printhead assembly incorporating one or more printhead modules | Kia Silverbrook, Tobin Allen King | 850.00 | ART108 |
| 2 | ZE018 | Printhead assembly incorporating a channel member | Kia Silverbrook, Tobin Allen King | 850.00 | ART108 |
| 3 | ZE019 | Printhead assembly incorporating an elastomeric feed member | Kia Silverbrook, Tobin Allen King | 850.00 | ART108 |
| 4 | ZE020 | Printhead assembly incorporating micromoldings | Kia Silverbrook, Tobin Allen King | 850.00 | |
| 5 | BAL70 | A camera for printing manipulated images | Kia Silverbrook, Paul Lapstun, Simon Robert | 998.00 | ART108 |
| 6 | BAL71 | A camera for pirnting on media provided on print roll | Walmsley Kia Silverbrook, Paul Lapstun, Simon Robert | | ART51 |
| 7 | BAL72 | A camera for printing manipulated images on media | Walmsley Kia Silverbrook, Paul Lapstun, Simon Robert | 1,142.00 | ART51 |
| 8 | BAL73 | A camera and controlling processing system | Walmsley Kia Silverbrook, Paul Lapstun, Simon Robert | 1,070.00 | ART51 |
| 9 | ZE009 | A method of fabricating a fluid ejection device using a planarizing step | Walmslev Kia Silverbrook | 1,070.00 | ART51 |
| 10 | ZE010 | A micro-electromechanical fluid ejection device with control logic circuitry | Kia Silverbrook | 810.00 810.00 | IJ46 Div. 2 |
| 11 | ZE011 | A printhead configuration incorporating a nozzle arrangement layout | Kia Silverbrook | | |
| 12 | ZE012 | A method of fabricating a micro-electromechanical device having a laminated actuator | Kia Silverbrook | 810.00 810.00 | IJ46 Div. 2 |
| 13 | ZF189 | An image capture and processing device for a print on demand digital camera system | Kia Silverbrook | 810.00 | IJ46 Div. 2 |
| 14 | ZF190 | A printhead assembly for a print on demand digital camera system | Kia Silverbrook | 810.00 | IR18 IR18 |
| 15 | ZF191 | A printhead re-capping assembly for a print on demand digital camera system | Kia Silverbrook | 810.00 | IR18 |
| 16 | MTB05 | Ink Jet printhead with circular cross section chamber | Kia Silverbrook | 1,044.00 | MJ40 |
| 17 | MTB07 | Ink jet printhead with amorphous ceramic chamber | Kia Silverbrook | 1,116.00 | MJ40 |
| 18 | ZF132 | Composite support beam for pirnthead assembly | Kia Silverbrook | 810.00 | MJ44 |
| 19 | ZF133 | Thermal expansion relief for printhead assembly | Kia Silverbrook | 810.00 | MJ44 |
| 20 | ZF134 | Thermal expansion compensation for printhead assembly | Kia Silverbrook | 810.00 | MJ44 |
| 21 | ZE013 | A micro-electromechanical fluid ejection device having a chamber that is volumetrically altered for fluid ejection | Kia Silverbrook | 810.00 | MJ95 |
| 22 | ZE014 | A micro-electromechanical fluid ejection device having a nozzle guard | Kia Silverbrook | 810.00 | MJ95 |
| 23 | MTB01 | Thermal ink jet printhead with short heater to nozzie aperture distance | Kia Silverbrook | 1,422.00 | MJT001 |
| 24 | MTB012 | Thermal ink jet printhead with low resistance electrodes for heaters | Kia Silverbrook | 1,422.00 | MJT001 |
| 25 | MTB013 | Thermal ink jet printhead with heater elements supported by electrodes | Kia Silverbrook | 1,422.00 | MJT001 |

| 26 | MTB02 | Very high efficiency thermal ink jet printhead | Kia Silverbrook, Angust John North, Gregory John McAyoy | 1,502.00 | MJT001 |
|----|-------|---|---|----------|---------|
| 27 | МТВ03 | Low voltage thermal ink jet printhead | Kia Silverbrook | 1,422.00 | MJT001 |
| 28 | МТВ04 | Inkjet printhead with low mass displacement nozzle | Kia Silverbrook | 1,422.00 | MJT001 |
| 29 | мтво6 | Thermal ink jet printhead with bubble collapse point close to nozzle aperture | Kia Silverbrook | 1,422.00 | MJT001 |
| 30 | MTB14 | Heat dissipation within thermal ink jet printhead | Kia Silverbrook | 1,422.00 | MJT001. |
| 31 | ZF184 | Ink Distribution assembly | Kia Silverbrook | 810.00 | PAK12 |
| 32 | ZG185 | Printhead chassis assembly | Kia Silverbrook | 810.00 | PAK12 |
| 33 | ZG186 | Laminated distribution structure | Kia Silverbrook | 810.00 | PAK12 |
| 34 | ZG112 | Chips with wafer scale caps formed by molding | Kia Silverbrook | 810.00 | WSM01 |
| 35 | ZG113 | Two part mold for wafer scale caps | Kia Silverbrook | 810.00 | WSM01 |
| 36 | ZG114 | Wafer scale caps located by molding | Kia Silverbrook | 810.00 | WSM01 |
| 37 | ZG115 | Molded wafer scale cap array | Kia Silverbrook | 810.00 | WSM01 |
| 38 | ZG116 | Placement tool for wafer scale caps | Kia Silverbrook | 810.00 | WSM01 |
| 39 | ZG117 | Mold making method for wafer scale caps | Kia Silverbrook | 810.00 | WSM01 |
| 40 | ZG118 | Chip with molded cap array | Kia Silverbrook | 810.00 | WSM01 |
| 41 | ZG119 | Molded wafer scale cap | Kia Silverbrook | 810.00 | WSM01 |
| 42 | ZF117 | Thermoelastic inkjet actuator with heat conductive pathways | Kia Silverbrook, Gregory John McAvoy | 850.00 | YU185 |
| 43 | ZE005 | An ink jet printhead chip having an actuator mechanisms located about ejection ports | Kia Silverbrook, Gregory John McAvoy | 850.00 | YU195 |
| 44 | ZE006 | A method of fabricating an ink jet printhead chip having actuator mechanisms located about ejection ports | Kia Silverbrook, Gregory John McAvoy | 850.00 | YU195 |
| 45 | ZE007 | A micro-electromechanical fluid ejection device having actuator mechanisms located about ejection ports | Kia Silverbrook, Gregory John McAvoy | 850.00 | YU195 |
| 46 | ZE008 | A micro-electromechanical fluid ejection device having nozzle chambers with diverging walls | Kia Silverbrook, Gregory John McAvoy | 850.00 | YU195 |
| 47 | ZG187 | Page binder with air cushion and non-contact adhesive applicator | Kia Silverbrook | 850.00 | ZF107 |
| 48 | ZG188 | Page binder with adhesive applicator for gluing traling edge of pages | Kia Silverbrook | 850.00 | ZF107 |
| 49 | ZG189 | Page binder with two part adhesive applicator | Kia Silverbrook | 850.00 | ZF107 |
| 50 | МТВ08 | Inkjet printhead with ink supply passage to nozzle etched from opposing sides of wafer | Kia Silverbrook | 1,170.00 | ZF121 |

| 51 | МТВ09 | Inkjet printhead with non-uniform width ink supply passage to nozzle | Kia Silverbrook | 1,112.00 | ZF121 |
|----|-------|--|-----------------|-----------|-------|
| 52 | MTB10 | Inkjet printhead with ink chamber inlet etched into wafer | Kia Silverbrook | 1,256.00 | ZF121 |
| 53 | MTB11 | Inkjet printhead with ink supply passage formed from both sides of the wafer by overlapping etches | Kia Silverbrook | 1,256.00 | ZF121 |
| 56 | | | | | |
| 57 | | | | 51,520.00 | |

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